On the Eggs and Instars of Scutigerella sp.*

By

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With Text-figures.

This species is common in Amboina, very abundant in Ceram, and probably also in all the Moluccas, and perhaps other islands of Netherlands India. It lives chiefly, and in great numbers, in the black mould between the bark and the wood of rotten logs, in the rotten wood itself, under dead leaves, and under stones and pieces of wood lying on the ground. It is found only in damp situations, and seems to prefer the low-lying land to the hills, though it is common there also.

The female makes use of small cavities in the wood to lay her eggs in, the cavities being probably made by other wood-boring insects. The eggs (fig. 1) are laid in batches of about half a dozen; there is a short, stout pedicel or pillar, hollow and more or less ribbed, the upper part of which embraces the lower half of the first egg laid; the base of the pillar is cemented to the wall of the egg-chamber. The rest of the eggs are cemented to the first egg and to one another, and

* The authors having requested me to send the Myriapods which are the subject of this paper, to some competent naturalist, I consulted Mr. Pocock, who informs me that they belong to the genus Scutigerella, and probably the species Orientalis, Hansen (this Journal, vol. 47, 1903, p. 38).—Adam Sedgwick.

apparently the pillar serves to keep the eggs clear of the cavity walls and allows the female to reach and examine the

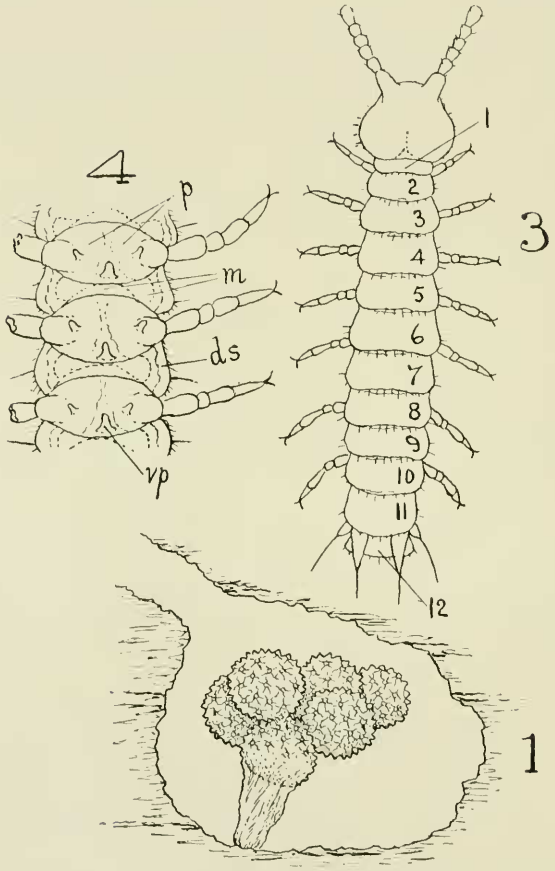

Fig. 1.—Eggs in egg-chamber.
Fig. 3.—Dorsal view of newly-hatched animal. 1—12 the tergites of the trunk segments.
Fig. 4.—Ventral view of mid-segments of adult. *p.* Semi-chitinous pedigerous sternite. *m.* Membrane connecting the sternites. *vp.* Median ventral process found on segments 4—9 inclusive. *ds.* Dorsal scutæ (tergites).

eggs—perhaps to keep them free from mould and mites. The eggs are dull white and processed all over, each process

emitting little ridges or ribs from the base (usually five ribs), which form a sort of reticulation over the surface. They are nearly globular, about $\frac{1}{2}$ mm. in diameter, and seem large in

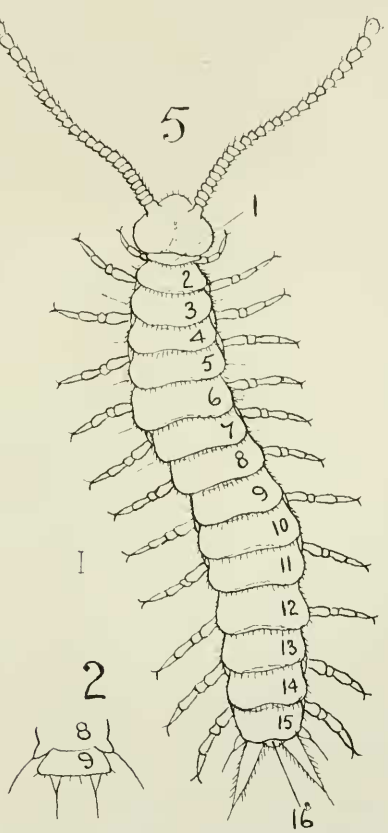

Fig. 2.—Ventral view of posterior segments (8, 9) of newly-hatched animal.
Fig. 5.—Adult female. 1—16 tergites.

comparison with the female. We took the eggs in February and March, but there are probably broods throughout the year.

The newly-hatched animals have seven pairs of legs, and acquire a pair of legs at a time till mature, when they possess

twelve pairs. In all instars this Scolopendrella is entirely white, and is very active—though, for a few hours after hatching, the young seem to rest on the empty egg-shells, along with their mother. When newly-hatched they are about 1 mm. in length. The female guards her eggs and young as do the Centipedes, and even when the egg-chamber is rudely broken open will not, as a rule, desert them. The adults, from an examination of the contents of the stomach, appear to feed chiefly on rotten wood and fungus growths, but probably, along with this material, swallow the minute animals abounding in the logs.

In the adult there are sixteen dorsal segments; the first segment very small, the fifteenth bearing the cerci. There are fourteen ventral segments, the thirteenth bearing the anal papillæ with tactile bristles. In the adult the sixteenth tergite and the fourteenth sternite are very obscure, being retracted into the penultimate segment; but in the newly-hatched animal (fig. 2, 9, and fig. 3, 12) they are perfectly distinct, and bear small hairs like all the anterior segments. Between the sternites there is a fold of softer membrane (fig. 4, *m.*) which allows free movements to the segments; this membrane cannot be considered as a segment. In a second and less common species of Scolopendrella in Ceram, the tergites are small and have a fold of membrane between them, as well as the sternites. On the ventral segments, four to nine inclusive, there are small median processes, one on each segment (*vp*, fig. 4).

From the following table it will be observed that there are six pedigerous instars, and that the young acquire the legs in pairs; the ventral segments increase in number in the same ratio as the pairs of legs, whilst the number of dorsal segments remains the same in the fifth and sixth (adult) instars. The number of antennal joints in the first instar is six, and in the second instar usually twelve, but afterwards we found the number of joints acquired in the remaining instars to vary very much. They also vary in the adults, but the usual numbers seem to be twenty-five to thirty. The

antennæ seem very subject to mutilation, and in many specimens the two antennæ did not possess an equal number of joints.

	Tergites.	Sternites.
Seven pairs of legs . .	12	9
Eight ,, ,, . .	13	10
Nine ,, ,, . .	14	11
Ten ,, ,, . .	15	12
Eleven ,, ,, . .	16	13
Twelve ,, ,, . .	16	14

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